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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,918	10/12/2004	Ichizou Nakamura	121446	4876

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EXAMINER	
MAKI, STEVEN D	

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/510,918	NAKAMURA, ICHIZOU	
	Examiner	Art Unit	
	Steven D. Maki	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 October 2006 and 16 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2) Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the scope of "a part of the rubber constituting a top portion of the sub block is removed to reduce the area of a upper face of the sub block" (emphasis added) is ambiguous. This appears to be a process step such as to render the scope of the claimed tire indefinite. One of ordinary skill in the art is not reasonably appraised of the scope of protection afforded by this language. It is not clear which block shapes fall within the scope of this language and which block shapes are excluded by this language. Since claim 1 fails to specify the initial shape and/or the technique used during the "step" of "is removed", the meets and bounds of the claimed shape of the sub-block cannot be determined.

In claim 5, there is no antecedent basis for "the grooves" and as such the relationship between "the grooves" and the "main blocks" is unclear. As a related matter, the relationship, if any, between the main blocks in claim 1 and the plural basic pattern elements in claim 5 is unclear.

3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Japan 705

5) **Claims 1-4, 8-10 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 705 (JP 3-143705).**

Japan 705 discloses a pneumatic motorcycle tire having blocks B and semi-ribs 4, which are inherently made of rubber. The semi-ribs 4 have a lower height than the main blocks B. See figures 1-3. The claimed sub blocks read on the semi-ribs 4 having the cross sectional shape shown in figure 3.

In claim 1, "a part of the rubber constituting a top portion of the sub block has been removed to reduce the area of an upper face of the sub block" (emphasis added) *was changed to* "a part of the rubber constituting a top portion of the sub block is removed to reduce the area of an upper face of the sub block" (emphasis added). Since **claim 1 is directed to a tire instead of a process**, claim 1 fails to require specifying an initial shape and a subsequent process step of removing rubber from that initial shape. Furthermore, the description of "is removed" in tire claim 1 fails to require a shape for the sub-block different from that disclosed by Japan 705. Attention is directed to the illustrated examples in interview summary attachment for interview held

on 9-8-06. As can be seen from the interview summary attached dated 9-8-06, the characteristics of the shape of the sub block depend on the sub block's initial shape (not claimed) and the specifics of the rubber removal (also not claimed). Claim 1 reads on removing rubber as illustrated in the third example (far right example) in the interview summary attachment dated 9-8-06, and thereby reads on the shape of Japan 705's sub block. As to claims 8-10 and 12-13, the "active step" of "is removed" in claim 1 is interpreted as applying to claims 8-10 and 12-13. In other words, claims 8-10 now read on removing rubber from the bending portion containing sub block such that claims 8-10 read on a sub block having no mid bending portion. New claims 12 and 13 read on removing rubber from the sub block such that claim 12 fails to require a chamfered edge and claim 13 fails to require a depression. It is emphasized that one of ordinary skill in the art is not reasonably appraised of the scope of protection afforded by "a part of the rubber constituting a top portion of the sub block is removed to reduce the area of a upper face of the sub block" (emphasis added).

6) **Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 705 (JP 3-143705).**

Japan 705 is considered to anticipate claims 1-4. In any event: As to claims 1-13, it would have been obvious to one of ordinary skill in the art to provide Japan 705's motorcycle tire such that the tread including the blocks and semi-ribs are made of rubber since it is taken as well known / conventional per se in the motorcycle tire art to use rubber to form a block pattern tire tread for a motorcycle tire.

As to claims 2-4, note arrangement of blocks and semi-ribs in figure 2.

As to claims 5-7, the claimed negative ratio of 65-97% would have been obvious and could have been determined without undue experimentation in view of (1) Japan 705's teaching to use motorcycle tire having the block pattern tread on soft soil and (2) the wide spacing of the blocks and semi-ribs in shown in Japan 705's figure 1. The claimed block area ratio would have been obvious and could have been determined without undue experimentation in view of Japan 705's teaching to add semi-ribs to increase tractive force. As to the curvature ratio, Japan 705's tire is a motorcycle tire - such as tire having a relatively large curvature ratio. See figure 1. As to the block height ratio, Japan 705 teaches a semi-rib height H = 33-50% block height D.

As to claim 11, it would have been obvious to one of ordinary skill in the art to provide Japan 705's pneumatic tire with a radial carcass since it is taken as well known / conventional per se in the motorcycle art to use radial tire construction for pneumatic motorcycle tires.

As to claims 8-10 and 12-13, note examiner's comments made in the 102 rejection over Japan 705.

Japan 417

7) **Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 417 (JP 2000-25417) in view of Potts et al (US 5088535).**

Japan 417 discloses a pneumatic motorcycle tire having a tread comprising main blocks 14, 18 and sub blocks 16. The negative ratio of the tread is at least 75%. The height of the sub blocks 16 is 40-80% of the height of the main blocks. One of ordinary skill in the art would readily understand that Japan 417's tread is made of rubber. In any

event: it would have been obvious to one of ordinary skill in the art to provide Japan 417's tire such that the tread including the main blocks 14, 18 and sub blocks 16 are made of rubber since it is taken as well known / conventional per se in the motorcycle tire art to use rubber to form a block pattern tire tread for a motorcycle tire. Japan 417 teaches that the tire has remarkably improved skidding performance during cornering without impairing the traction performance on muddy ground. Japan 417 does not recite "a part of the rubber constituting a top portion of the sub block is removed to reduce the area of an upper face of the sub block".

As to claim 1, it would have been obvious to one of ordinary skill in the art to provide the sub blocks 16 of Japan 417's motorcycle tire for use on muddy ground such that the sub block has a shape satisfying "a part of the rubber constituting a top portion of the sub block is removed to reduce the area of an upper face of the sub block" (emphasis added) since Potts et al suggests beveling blocks of an off-road motorcycle tire so that during cornering the ground surface can drop between blocks and improve gripping action (col. 3 lines 12-28).

In claim 1, "a part of the rubber constituting a top portion of the sub block has been removed to reduce the area of an upper face of the sub block" (emphasis added) *was changed to* "a part of the rubber constituting a top portion of the sub block is removed to reduce the area of an upper face of the sub block" (emphasis added). Since **claim 1 is directed to a tire instead of a process**, claim 1 fails to require specifying an initial shape and a subsequent process step of removing rubber from that initial shape. It is emphasized that one of ordinary skill in the art is not reasonably

appraised of the scope of protection afforded by "a part of the rubber constituting a top portion of the sub block is removed to reduce the area of a upper face of the sub block" (emphasis added).

As to claims 2-4, note arrangement of main blocks 14, 18 and sub blocks 16 in the figures.

As to claims 5-7, the claimed block area ratio would have been obvious and could have been determined without undue experimentation in view of (1) Japan 417's teaching to add low height sub blocks 16 to improve skidding performance and (2) Potts et al's suggestion to bevel blocks to improve gripping action. As to the negative ratio, Japan 417 teaches using a negative ratio of at least 75%. As to the curvature ratio, Japan 417s tire is a motorcycle tire - such as tire having a relatively large curvature ratio. As to the block height ratio, Japan 417 teaches a sub block 16 height of 40-80% of the main block height.

As to claims 8 and 9, the claimed limitations regarding the bending portion would have been obvious in view of the above noted suggestion from Potts et al to bevel blocks.

As to claim 10, Japan 417 orients the low height sub blocks 16 in the circumferential direction. See figures.

As to claim 11, it would have been obvious to one of ordinary skill in the art to provide Japan 417's pneumatic tire with a radial carcass since it is taken as well known / conventional per se in the motorcycle art to use radial tire construction for pneumatic motorcycle tires.

As to claim 12, the beveled edge suggested by Potts et al is a chamfered edge.

8) **Claims 1-7, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 417 (JP 2000-25417) in view of Great Britain 200 (GB 2005200) or Kemp (US 6,253,815).**

Japan 417 discloses a pneumatic motorcycle tire having a tread comprising main blocks 14, 18 and sub blocks 16. The negative ratio of the tread is at least 75%. The height of the sub blocks 16 is 40-80% of the height of the main blocks. One of ordinary skill in the art would readily understand that Japan 417's tread is made of rubber. In any event: it would have been obvious to one of ordinary skill in the art to provide Japan 417's tire such that the tread including the main blocks 14, 18 and sub blocks 16 are made of rubber since it is taken as well known / conventional per se in the motorcycle tire art to use rubber to form a block pattern tire tread for a motorcycle tire. Japan 417 teaches that the tire has remarkably improved skidding performance during cornering without impairing the traction performance on muddy ground. Japan 417 does not recite "a part of the rubber constituting a top portion of the sub block is removed to reduce the area of an upper face of the sub block" (emphasis added).

As to claim 1, it would have been obvious to one of ordinary skill in the art to provide the sub blocks 16 of Japan 417's motorcycle tire for use on muddy ground such that the sub block has a shape satisfying "a part of the rubber constituting a top portion of the sub block is removed to reduce the area of an upper face of the sub block" (emphasis added) in view of Great Britain 200's suggestion to form a recess in a top portion of a block of a tread of a motorcycle tire to increase the number of edges in the

tread to increase holding capability of the tire or Kemp et al's suggestion to form recesses in a low height "sub block" (stone ejector) in a groove of a tread to provide an optical effect.

In claim 1, "a part of the rubber constituting a top portion of the sub block has been removed to reduce the area of an upper face of the sub block" (emphasis added) *was changed to* "a part of the rubber constituting a top portion of the sub block is removed to reduce the area of an upper face of the sub block" (emphasis added). Since **claim 1 is directed to a tire instead of a process**, claim 1 fails to require specifying an initial shape and a subsequent process step of removing rubber from that initial shape. It is emphasized that one of ordinary skill in the art is not reasonably appraised of the scope of protection afforded by "a part of the rubber constituting a top portion of the sub block is removed to reduce the area of a upper face of the sub block" (emphasis added).

As to claims 2-4, note arrangement of main blocks 14, 18 and sub blocks 16 in the figures.

As to claims 5-7, the claimed block area ratio would have been obvious and could have been determined without undue experimentation in view of (1) Japan 417's teaching to add low height sub blocks 16 to improve skidding performance and (2) the above noted suggestion from Great Britain or Kemp et al to form a recess in a block. As to the negative ratio, Japan 417 teaches using a negative ratio of at least 75%. As to the curvature ratio, Japan 417s tire is a motorcycle tire - such as tire having a relatively

large curvature ratio. As to the block height ratio, Japan 417 teaches a sub block 16 height of 40-80% of the main block height.

As to claim 10, Japan 417 orients the low height sub blocks 16 in the circumferential direction. See figures.

As to claim 11, it would have been obvious to one of ordinary skill in the art to provide Japan 417's pneumatic tire with a radial carcass since it is taken as well known / conventional per se in the motorcycle art to use radial tire construction for pneumatic motorcycle tires.

As to claim 13, the claimed depression reads on the recess suggested by Great Britain or Kemp et al.

Remarks

9) Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 8-16-06 have been fully considered but they are not persuasive.

With respect to Japan 705, applicant's argument that no further removal of rubber constituting the upper portion of the semi-ribs is suggested is not persuasive since none of the pending tire claims 1-13 require the process step of "further removal" of rubber.

With respect to Japan 705, applicant's argument that unlike the present subject matter, the surface area of the upper face of the semi-ribs matches the area projected by the sides, is not persuasive since the bottom of Japan 705's semi-rib is wider than the top of the semi-rib.

With respect to Japan 417, applicant's argument hat Potts et al does not suggest removing a further part of the top portion of the sub block is not persuasive since none of the pending tire claims 1-13 require the process step of "further removal" of rubber.

With respect to Japan 417 (directed to a motorcycle tire), applicant's argument that it would not be obvious to one of ordinary skill in the art to look to a tread feature intended for bicycles tires to modify a motorcycle tire is not persuasive since, contrary to applicant's argument, Potts et al is not limited to a bicycle tire. See title of Potts et al which recites "Bicycle or motorcycle tire tread". Also, see col. 1 lines 17-20 and line 1 of claim 1 of Potts et al.

With respect to Japan 417, applicant's argument that Potts et al discloses beveling the edges of blocks spaced laterally outside of the center traction blocks is not persuasive since (1) Japan 417, which locates sub blocks such that there is a trough on both sides of the circumferentially extending sub block (e.g. there is a trough between sub block 16 and block 18 in figures 1, 2), teaches using the circumferentially extending sub blocks to improve skidding during cornering and (2) Potts et al teaches beveling the circumferentially extending blocks 16, 16A to facilitate gripping engagement with the ground and thus enhance lateral traction (col. 3).

10) No claim is allowed.

11) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

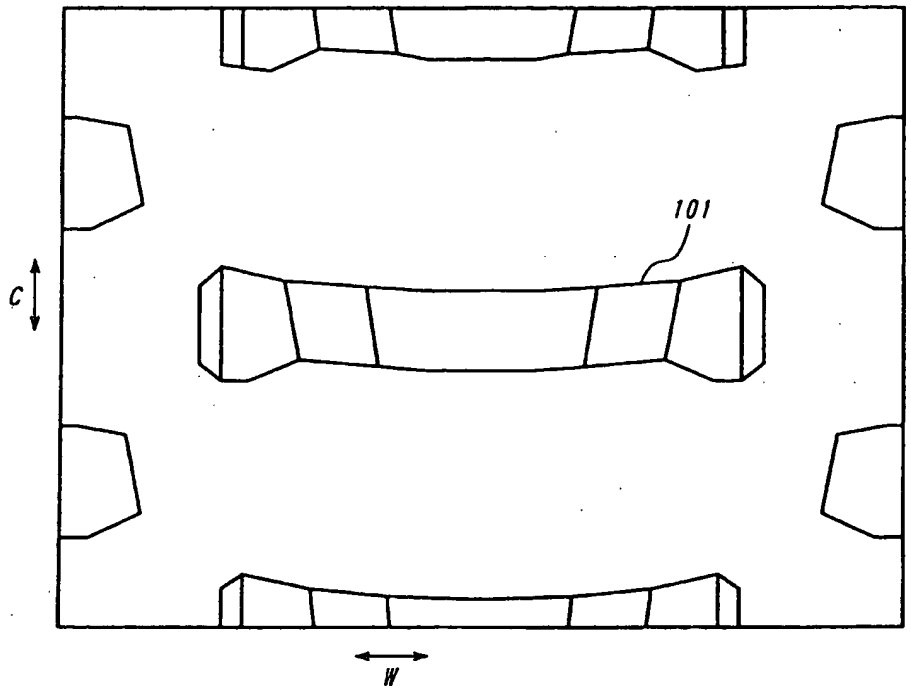
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven D. Maki
October 29, 2006

Steven D. Maki 10-29-06
STEVEN D. MAKI
PRIMARY EXAMINER

FIG. 7
RELATED ART



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